



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO
09/767,617	01/23/2001	Erika Monika Gohl	002282.P119	3486
24197 7:	590 06/08/2004		EXAMINER	
KLARQUIST SPARKMAN, LLP			DARROW, JUSTIN T	
121 SW SALMON STREET SUITE 1600			ART UNIT	PAPER NUMBER
PORTLAND;	OR 97204		2132	
			DATE MAILED: 06/08/2004	8

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)	PRG_			
			• :			
Office Action Summary	09/767,617		GOHL, ERIKA MONIKA			
Onice Action Cummary	Examiner	Art Unit	~			
The MAILING DATE of this communication a	Justin T. Darrow	2132	roco			
Period for Reply	appears on the cover siree	with the correspondence add	ress			
A SHORTENED STATUTORY PERIOD FOR REF THE MAILING DATE OF THIS COMMUNICATION  - Extensions of time may be available under the provisions of 37 CFR after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a I - If NO period for reply is specified above, the maximum statutory peri- - Failure to reply within the set or extended period for reply will, by sta Any reply received by the Office later than three months after the ma- earned patent term adjustment. See 37 CFR 1.704(b).	N. 1.136(a). In no event, however, ma reply within the statutory minimum of od will apply and will expire SIX (6) N tute, cause the application to becom	y a reply be timely filed thirty (30) days will be considered timely. MONTHS from the mailing date of this come a ABANDONED (35 U.S.C. § 133).	nmunication.			
Status						
1) Responsive to communication(s) filed on 18	8 March 2004.					
2a) ☐ This action is <b>FINAL</b> . 2b) ☑ T	his action is non-final.					
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is						
closed in accordance with the practice unde	closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.					
Disposition of Claims	·		•			
4) ☐ Claim(s) 1-24 is/are pending in the application 4a) Of the above claim(s) is/are withd 5) ☐ Claim(s) 21-24 is/are allowed.  6) ☐ Claim(s) 1-5,9 and 10 is/are rejected.  7) ☐ Claim(s) 6-8 and 11-20 is/are objected to.  8) ☐ Claim(s) are subject to restriction and application Papers  9) ☐ The specification is objected to by the Examinus 10) ☐ The drawing(s) filed on 23 January 2001 is/are	rawn from consideration.  d/or election requirement.	] objected to by the Examiner.				
Applicant may not request that any objection to the	ne drawing(s) be held in abe	yance. See 37 CFR 1.85(a).				
Replacement drawing sheet(s) including the correct 11) The oath or declaration is objected to by the			` ,			
Priority under 35 U.S.C. § 119						
12) Acknowledgment is made of a claim for foreign a) All b) Some * c) None of:  1. Certified copies of the priority docume 2. Certified copies of the priority docume 3. Copies of the certified copies of the priority docume * See the attached detailed Office action for a list	nts have been received.  nts have been received in  iority documents have been  eau (PCT Rule 17.2(a)).	Application No en received in this National St	age			
Attachment(s)		·				
Notice of References Cited (PTO-892)  Notice of Draftsperson's Patent Drawing Review (PTO-948)  Information Disclosure Statement(s) (PTO-1449 or PTO/SB/0 Paper No(s)/Mail Date	Paper N	v Summary (PTO-413) o(s)/Mail Date f Informal Patent Application (PTO-15	52)			

Application/Control Number: 09/767,617 Page 2

Art Unit: 2132

#### **DETAILED ACTION**

1. Claims 1-24 have been presented for examination. Claims 4, 7, 9, 11, 14, 17, 19, 21, 23, and 24 have been amended in an amendment filed 03/18/2004. Claims 1-24 have been examined.

## Response to Arguments

- 2. Applicant's arguments, see Paper No. 7, page 12, lines 9-23 and page 13, lines 1-21, filed 03/18/2004, with respect to the rejections of claims 1-3 under 35 U.S.C. 102(b) have been fully considered and are persuasive. Therefore, the rejections have been withdrawn. However, upon further consideration, new grounds of rejection is made in view of Terao et al., U.S. Patent Application Publication No. US 2003/0097567 A1 in view of Hayashida, U.S. Patent No. 5,644,118 A and further in view of Stambler, U.S. Patent No. 5,793,302 A.
- 3. Applicant's arguments, see Paper No. 7, page 15, lines 19-23, filed 03/18/2004, with respect to the rejection of claim 5 under 35 U.S.C. 102(b) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground of rejection is made in view of Terao et al., U.S. Patent Application Publication No. US 2003/0097567 A1 in view of Hayashida, U.S. Patent No. 5,644,118 A.
- 4. Applicant's arguments, see Paper No. 7, page 15, lines 19-23, filed 03/18/2004, with respect to claim 6 have been fully considered and are persuasive. The rejection of claim 6 has been withdrawn.
- 5. Applicant's arguments, see Paper No. 7, page 16, lines 6-14, filed 03/18/2004, with respect to the rejection of claim 10 under 35 U.S.C. 103(a) have been fully considered and are

Art Unit: 2132

persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground of rejection is made in view of Terao et al., U.S. Patent Application Publication No. US 2003/0097567 A1 in view of Hayashida, U.S. Patent No. 5,644,118 A and further in view of Harkins, U.S. Patent No. 6,151,395 A.

6. The indicated allowable subject matter of claims 4 and 9 is withdrawn in view of the newly discovered references to Terao et al., U.S. Patent Application Publication No. US 2003/0097567 A1 in view of Hayashida, U.S. Patent No. 5,644,118 A. Rejections based on the newly cited reference follow.

#### Claim Objections

- 7. Claim 1 is objected to because of the following informalities: insert after "terminal;" in line 6, --and--. Appropriate correction is required.
- 8. Claim 4 is objected to because of the following informalities: insert after "terminal;" in line 9, --and--. Appropriate correction is required.
- 9. Claim 7 is objected to because of the following informalities: insert after "terminal;" in line 8, --and--. Appropriate correction is required.
- 10. Claim 11 is objected to because of the following informalities: insert after "code;" in line 7, --and--. Appropriate correction is required.
- 11. Claim 14 is objected to because of the following informalities: insert after "code;" in line 9, --and--. Appropriate correction is required.
- 12. Claim 17 is objected to because of the following informalities: insert after "code;" in line 8, --and--. Appropriate correction is required.

Art Unit: 2132

### Claim Rejections - 35 USC § 102

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

### Claim Rejections - 35 USC § 103

- 14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 15. Claims 1, 2, and 5; 4 and 9; are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Terao et al., U.S. Patent Application Publication No. US 2003/0097567 A1 in view of Hayashida, U.S. Patent No. 5,644,118 A.

As per claim 1, Terao et al. illustrate a method for authenticating a first terminal to a second terminal (see ¶¶ [0116]-[0118]; figure 4; authentication of a proof data generation device to a proof data verification device) comprising:

requesting a string from a second terminal (see ¶ [0137]; requesting the opening of communication in accordance of a predetermined procedure; see ¶ [0140]; figures 3 and 4;

Art Unit: 2132

resulting in authentication data m in the form of a string being transmitted from the proof data verification device to the proof data generation device);

obtaining the requested string from the second terminal (see ¶ [0140]; figures 3 and 4; resulting in authentication data m being transmitted from the proof data verification device to the proof data generation device); and

merging the obtained string with a password to create an identification code (see ¶¶ [0153]-[0154]; figure 4; calculating an expression V from; see ¶¶ [0148]-[0149]; figure 3, items 111, 112, 113, and 115; a result from performing a calculation using the authentication data m and; see ¶¶ [0145]-[0146]; figure 3, items 111, 112, and 113; and an expression based on user unique identifying information e; see ¶ [0123]; figure 3, item 112; where user unique identifying information e is different for each user like a password); and

receiving an authentication if the identification code matches an identification code expected at the second terminal (see  $\P$  [0158]; figure 4; verification is effected correctly when values V and V' coincide).

Although Terao et al. suggest that the above method of authenticating can be used to ATMs as a first terminal in a bank (see ¶ [0105]), they do not explicitly teach sending information from an information server to the first terminal. However, this step is deemed to be inherent to the method of Terao et al. because an ATM in a bank would not function if information was not sent to it from an information server. Because this missing descriptive matter is necessarily present to cause the method to function and because persons of ordinary skill in the art would recognize this necessary presence, the inherency of this missing step is

Art Unit: 2132

sufficiently established. See MPEP § 2112 and *In re Roberston*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999).

Hayashida illustrates:

receiving an authentication if a personal identification code matches a personal identification code expected at a second terminal (see column 10, lines 46-49; figure 8A, step 733; the ATM terminal unit judges the personal identification code to be valid);

sending information from an information server to the first terminal (see column 10, lines 54-67; column 11, lines 1-2; figure 1, items 1, 2, and 3; figure 2, item 21; figure 8A, steps 741 and 742; the bank center device withdraws the replenishing amount from the deposit account and sends it through the ATM terminal unit to the multi-function IC card).

Therefore, it would have been obvious to one of ordinary skill in the computer art at the time the invention was made to combine the method of Terao et al. with the sending of information from an information server to the first terminal of Hayashida to apply the method of Terao et al. to ATMs in a bank (see Terao et al., ¶ [0105]).

As per claim 2, Terao et al. further point out:

that the string a pseudo random number sequence (see ¶ [0139]; figure 2, items 10, 103 and 104; figure 4; a random number generated by the random number generation unit is stored as authentication data m into the authentication data memory unit in the proof data verification device).

As per claim 5, Terao et al. additionally teaches:

Art Unit: 2132

performing a block addition of the string and the password (see ¶¶ [0148]-[0149]; figure 3, items 11, 111, 113, and 115; equation (1-8); the proof data generation unit in the proof generation device combines the authentication data m with the data generated in the exponent generation unit; see ¶¶ [0145]-[0146]; figure 3, items 11, 111, 112, and 113; equation (1-7); which consists of the unique user identifying information e).

As per claim 4, Terao et al. illustrate a method for authenticating a first terminal to a second terminal (see ¶¶ [0116]-[0118]; figure 4; authentication of a proof data generation device to a proof data verification device) comprising:

requesting a string from a second terminal (see ¶ [0137]; requesting the opening of communication in accordance of a predetermined procedure; see ¶ [0140]; figures 3 and 4; resulting in authentication data m in the form of a string being transmitted from the proof data verification device to the proof data generation device);

obtaining the requested string from the second terminal (see ¶ [0140]; figures 3 and 4; resulting in authentication data m being transmitted from the proof data verification device to the proof data generation device); and

merging the obtained string with a password to create an identification code (see ¶¶ [0153]-[0154]; figure 4; calculating an expression V from; see ¶¶ [0148]-[0149]; figure 3, items 111, 112, 113, and 115; a result from performing a calculation using the authentication data m and; see ¶¶ [0145]-[0146]; figure 3, items 111, 112, and 113; and an expression based on user unique identifying information e; see ¶ [0123]; figure 3, item 112; where user unique identifying information e is different for each user like a password), comprising

Art Unit: 2132

using an applet at the first terminal (see ¶ [0094]; figure 1, item 11; where the proof generation device is a proof program on the user's computer; see ¶ [0137]; figure 1, item 10; starting the proof data verification device in response to a TCP connection request from the user's computer) executing an encryption algorithm with a unique merging key (see ¶ [0121]; figure 2, item 101; where q, G, Y, P, and n represent the public key stored in the access ticket public key memory unit; see ¶¶ [0145-149]; figure 2, items 111, 112, 113, and 115; and stored in the authentication data memory unit and combined with the user unique identifying information e in a public key encryption algorithm); and

receiving an authentication if the identification code matches an identification code expected at the second terminal (see  $\P$  [0158]; figure 4; verification is effected correctly when values V and V' coincide).

Although Terao et al. suggest that the above method of authenticating can be used to ATMs as a first terminal in a bank (see ¶ [0105]), they do not explicitly teach sending information from an information server to the first terminal. However, this step is deemed to be inherent to the method of Terao et al. because an ATM in a bank would not function if information was not sent to it from an information server. Because this missing descriptive matter is necessarily present to cause the method to function and because persons of ordinary skill in the art would recognize this necessary presence, the inherency of this missing step is sufficiently established. See MPEP § 2112 and *In re Roberston*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999).

Hayashida illustrates:

Art Unit: 2132

receiving an authentication if a personal identification code matches a personal identification code expected at a second terminal (see column 10, lines 46-49; figure 8A, step 733; the ATM terminal unit judges the personal identification code to be valid);

sending information from an information server to the first terminal (see column 10, lines 54-67; column 11, lines 1-2; figure 1, items 1, 2, and 3; figure 2, item 21; figure 8A, steps 741 and 742; the bank center device withdraws the replenishing amount from the deposit account and sends it through the ATM terminal unit to the multi-function IC card).

Therefore, it would have been obvious to one of ordinary skill in the computer art at the time the invention was made to combine the method of Terao et al. with the sending of information from an information server to the first terminal of Hayashida to apply the method of Terao et al. to ATMs in a bank (see Terao et al., ¶ [0105]).

As per claim 9, Terao et al. further describe:

closing the applet (see ¶ [0158]; verification is effected for the completed calculations of V and V') after sending the encrypted data (see ¶¶ [0149]-[0151]; figure 2, items 11, 10, and 105; sending s resulting from the encryption algorithm to the proof data verification device) and thereby invalidating the string (see ¶ [0139]; figure 2, items 10 and 103; generating authentication data m so as to take a different value at every generation and each use of the verification procedure).

16. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Terao et al., U.S. Patent Application Publication No. US 2003/0097567 A1 in view of Hayashida, U.S. Patent No.

Art Unit: 2132

5,644,118 A as applied to claim 1 above, and further in view of Stambler, U.S. Patent No. 5,793,302 A.

Terao et al. in view of Hayashida disclose the method of claim 1. Although Terao et al. describe that authentication data m is generated so as to take a different value at every generation for a communication session (see ¶ [0139]), neither Terao et al. nor Hayashida teaches that the string is an element of an ordered series. Stambler describes that the string is an element of an ordered series (see column 8, lines 4-9; the coded PIN (CPIN) is codes with the transmission date and time). Therefore, it would have been obvious to one of ordinary skill in the computer art at the time the invention was made to combine the method of Terao et al. in view of Hayashida with the string as an element of an ordered series of Stambler to prevent a replay attack with a previously used string (see column 7, lines 63-67; column 8, lines 1-4; coding a transmission date and time to prevent the signal from being recorded and then played back later to attempt to fraudulently authenticate a fraudulent transaction).

17. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Terao et al., U.S. Patent Application Publication No. US 2003/0097567 A1 in view of Hayashida, U.S. Patent No. 5,644,118 A as applied to claim 1 above, and further in view of Harkins, U.S. Patent No. 6,151,395 A.

Terao et al. in view of Hayashida show the method of claim 1. Although Terao et al. describe that authentication data m is generated so as to take a different value at every generation

Art Unit: 2132

for a communication session (see ¶ [0139]), neither Terao et al. nor Hayashida teaches that the string is an element of an ordered series. Harkins elaborates opening another communications session using a string that is an element of an ordered series in which the string of the prior communications session is the preceding element of the same ordered series (see column 4, lines 32-46; column 9, lines 32-67; column 10, lines 1-6; and figures 6A and 6B; communications sessions between a party A and B where a key is incremented by one for successive sessions). Therefore, it would have been obvious to one of ordinary skill in the computer art at the time the invention was made to combine the method for authenticating a first terminal to a second terminal of Terao et al. in view of Hayashida with the incrementing of the key by one for successive communication session of Harkins so that an authorized law enforcement officer (LEO) may decrypt and inspect the encrypted messages involved in a desired communication session (see column 10, lines 7-10).

#### Allowable Subject Matter

- 18. Claim 6 would be allowable if rewritten to overcome the objection, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.
- 19. Claims 7 and 8; 11-13, 15, 16, and 20; 14 and 19; and 17 and 18 would be allowable if rewritten or amended to overcome the objections set forth in this Office action.
- 20. Claims 21-24 are allowed.
- 21. The following is a statement of reasons for the indication of allowable subject matter:

  Claim 6 is drawn to a method for authenticating a first terminal to a second terminal. The closest prior art, Terao et al., U.S. Patent Application Publication No. US 2003/0097567 A1 in

Art Unit: 2132

view of Hayashida, U.S. Patent No. 5,644,118 A and further in view of Leith et al., U.S. Patent No. 5,196,840 A, disclose a similar method. Although Leith et al. embody adding randomness to different combinations of the PIN (see column 11, lines 15-41 and figure 9), none of these inventors neither teach nor suggest performing a block addition of a permutated string and permutated password. This distinct step incorporated into dependent claim 6 renders claim 6 to have allowable subject matter.

Claims 4 and 9; and 14 and 19 are drawn to methods of authenticating a first terminal to a second terminal, respectively. The closest prior art, Stambler, U.S. Patent No. 5,793,302 A, discloses similar methods. However, Stambler neither shows nor motivates merging a string with a password using an applet at the first terminal, executing an encryption algorithm with a unique merging key. This composite step explicitly recited in intervening claims 4 and 14 renders claims 4 and 9; and 14 and 19, respectively, to have allowable subject matter.

Claims 7 and 8 are drawn to methods of authenticating a first terminal to a second terminal, respectively. The closest prior art, Terao et al., U.S. Patent Application Publication No. US 2003/0097567 A1 in view of Hayashida, U.S. Patent No. 5,644,118 A, discloses a similar method. However, none of these inventors depicts nor suggests obtaining the requested string by receiving a web page containing a program for generating requests and the string. This distinct step explicitly recited in independent claim 7 renders claims 7 and 8 to have allowable subject matter.

Claims 11-13, 15, 16, and 20; 14 and 19; and 17 and 18 are drawn to methods of authenticating a first terminal to a second terminal, respectively. The closest prior art, Terao et al., U.S. Patent Application Publication No. US 2003/0097567 A1, describe similar methods.

Art Unit: 2132

Terao et al. illustrate a method for authenticating a first terminal to a second terminal (see ¶¶ [0116]-[0118]; figure 4; authentication of a proof data generation device to a proof data verification device), comprising:

creating a string (see ¶ [0139]; figure 2, items 103 and 104; generating authentication data m) and storing it in association with an identification of a first terminal (see ¶¶ [0139]-[0140]; figure 2, items 101, 103, and 104; storing the authentication data m in the access ticket public key memory unit; see ¶¶ [0123]-[0125]; with the access ticket, t, in association with the user unique identifying information, e);

sending the string to the first terminal (see ¶ [0140]; figure 4; sending the authentication data m to the proof data generation device); and

receiving an identification code from the first terminal (see ¶ [0140]; figure 4; the proof data generation device sending s to the proof data verification device) composed by merging the sent string with a sender password (see ¶¶ [0148]-[0149]; figure 3, items 111, 112, 113, and 115; a result from performing a calculation using the authentication data m and; see ¶¶ [0145]-[0146]; figure 3, items 111, 112, and 113; and an expression based on user unique identifying information e; see ¶ [0123]; figure 3, item 112; where user unique identifying information e is different for each user like a password).

Although Terao et al. describe calculating another value with received authentication code (see ¶¶ [0153]-[0154]; figure 4; calculating an expression V from s) and comparing this value with an expected value for authenticating the first terminal (see ¶ [0158]; figure 4; verification is effected correctly when values V and V' coincide), they neither teach nor suggest comparing the received identification code with an expected identification code. This particular

Art Unit: 2132

step explicitly recited in independent claims 11, 14, and 17 renders claims 11-13, 15, 16, and 20; 14 and 19; and 17 and 18 to have allowable subject matter, respectively.

22. The following is an examiner's statement of reasons for allowance:

Claims 21 and 22; 23; and 24 are drawn to authentication terminals, respectively. The closest prior art, Terao et al., U.S. Patent Application Publication No. US 2003/0097567 A1, describe similar authentication terminals.

Terao et al. depict an authentication terminal comprising:

a merge string library coupled to a processor to create a merge string and (see ¶ [0139]; figure 2, items 103 and 104; a random number generation unit generating authentication data m) and to store it in association with an identification of a first terminal (see ¶¶ [0139]-[0140]; figure 2, items 101, 103, and 104; storing the authentication data m in the access ticket public key memory unit; see ¶¶ [0123]-[0125]; with the access ticket, t, in association with the user unique identifying information, e);

an output device to send the merge string to the second terminal (see  $\P$  [0140]; figure 4; the authentication data memory unit sending the authentication data m to the proof data generation device); and

an input device to receive an identification code from the second terminal (see ¶ [0140]; figure 4; the proof data generation device sending s to the authentication data memory unit of the proof data verification device) being composed by merging the sent string with a second terminal password (see ¶¶ [0148]-[0149]; figure 3, items 111, 112, 113, and 115; a result from performing a calculation using the authentication data m and; see ¶¶ [0145]-[0146]; figure 3, items 111, 112, and 113; and an expression based on user unique identifying information e; see ¶ [0123]; figure

Art Unit: 2132

3, item 112; where user unique identifying information e is different for each user like a password).

Although Terao et al. describe a verification computation unit calculating another value with received authentication code (see ¶¶ [0153]-[0154]; figure 4; calculating an expression V from s) and comparing this value with an expected value for authenticating the second terminal (see ¶ [0158]; figure 4; verification is effected correctly when values V and V' coincide), they neither teach nor suggest an identification test library to compare the received identification code with an expected identification code. This distinct feature explicitly recited in independent claims 21, 23, and 24 renders claims 21 and 22; 23; and 24 allowable, respectively.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

#### **Telephone Inquiry Contacts**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin T. Darrow whose telephone number is (703) 305-3872 and whose electronic mail address is justin.darrow@uspto.gov. The examiner can normally be reached Monday-Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barrón, Jr., can be reached at (703) 305-1830.

Art Unit: 2132

The fax number for Formal or Official faxes to Technology Center 2100 is (703) 872-9306. In order for a formal paper transmitted by fax to be entered into the application file, the paper and/or fax cover sheet must be signed by a representative for the applicant. Faxed formal papers for application file entry, such as amendments adding claims, extensions of time, and statutory disclaimers for which fees must be charged before entry, must be transmitted with an authorization to charge a deposit account to cover such fees. It is also recommended that the cover sheet for the fax of a formal paper have printed "OFFICIAL FAX". Formal papers transmitted by fax usually require three business days for entry into the application file and consideration by the examiner. Formal or Official faxes including amendments after final rejection (37 CFR 1.116) should be submitted to (703) 872-9306 for expedited entry into the application file. It is further recommended that the cover sheet for the fax containing an amendment after final rejection have printed not only "OFFICIAL FAX" but also "AMENDMENT AFTER FINAL".

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Art Unit: 2132

June 3, 2004

JUSTIN T. DARROW PRIMARY EXAMINER TECHNOLOGY CENTER 2100